

Appl. No. 10/710,012
Reply to Office Action of August 23, 2006

Attorney Docket No. 2001-1531 / 24061.439
Customer No. 42717

REMARKS

Claims 2-29 are present in the application. In view of the remarks that follow, Applicants respectfully request reconsideration.

Allowable Subject Matter

Noted with appreciation is the indication in the Office Action that Claims 13-14 and 27-28 are allowed.

On pages 9-10 of the Office Action, the Examiner offers a statement of reasons why Claims 13-14 and 27-28 are considered to recite allowable subject matter. The stated reasons are the same reasons given in a prior Office Action, and Applicants presented a comment on these reasons in the remarks of a prior Response. Accordingly, it is believed to be unnecessary to repeat the comment here.

Request

If, after considering the arguments below, the Examiner is still of the opinion that the rejected claims are not all allowable, then Applicants respectfully request that the Examiner telephone the undersigned in order to schedule a telephone interview, involving both Examiner Isaac and SPE Gurley (the signatory examiner on the final rejection).

Independent Claim 6

Claim 6 stands rejected under 35 U.S.C. §102 as anticipated by Yeo U.S. Patent No. 6,492,216, based on the embodiment shown in Figures 1-5 and 7-8 of Yeo. This ground of rejection is respectfully traversed. MPEP §2131 specifies that, for a reference to anticipate a claim under §102, the reference must teach each and every element recited in the claim, and in addition the elements must all be arranged as recited in the claim. Applicants' Claim 6 includes a recitation of:

... removing at least a portion of the semiconductor alloy
layer overlying the source and drain regions; . . .

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wherein removing at least a portion of the semiconductor alloy layer comprises:
altering at least a portion of the semiconductor alloy layer to a material receptive to a selective removal process; and
selectively removing the altered semiconductor alloy layer from overlying the source and drain regions.

The §102 rejection of Claim 6 is explained on pages 2-3 of the Office Action. This explanation has been copied verbatim from the last Office Action. In the portion of this text running from the last line on page 2 through line 3 on page 3, the Examiner asserts that the "altering" and "selectively removing" limitations in Claim 6 are met by lines 50-54 in column 5 of Yeo, where Yeo discusses an etching process that removes portions of a semiconductor alloy layer 2 made of silicon-germanium-carbon. The remarks of Applicants' last Response pointed out that, although the indicated portion of Yeo talks about etching, it says absolutely nothing about altering material of the semiconductor alloy 2 before the etching, and then etching away the altered material.

The Examiner replies to this argument on page 10 of the present Office Action. In particular, the Examiner refers to lines 40-60 in column 4 of Yeo, and asserts that they teach thermally oxidizing a semiconductor alloy layer, and then etching away the oxidation. A first problem with the Examiner's reply is that it is directly inconsistent with the §102 rejection of Claim 6. In particular, the §102 rejection of the "altering" and "selectively removing" limitations is based on lines 50-54 in column 5, where Yeo discusses an etching procedure that is carried out after Yeo forms his gate 6. In contrast, the Examiner's reply to Applicants' argument is based on an entirely different part of Yeo (lines 40-60 in column 4), where Yeo discusses steps that are carried out before Yeo forms his gate 6. This renders the §102 rejection internally inconsistent. Further, the attempt to rely on lines 40-60 in column 4 amounts to a new ground of §102 rejection that cannot properly be raised for the first time in a final rejection, because Applicants' last Response did not amend Claim 6. (See MPEP §706.07(a)).

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A second problem with the Examiner's reply is that lines 40-60 in column 4 of Yeo do not actually disclose what the Examiner says they do. More specifically, the Examiner asserts that lines 40-60 in column 4 of Yeo teach thermally oxidizing a semiconductor alloy layer, and then etching away the oxidation. However, lines 40-60 in column 4 of Yeo actually teach oxidizing the silicon layer 3, rather than a semiconductor alloy layer. Consequently, lines 40-60 in column 4 do not anticipate the "altering" and "selectively removing" limitations in Claim 6, because those limitations are expressly restricted to a semiconductor alloy layer.

Thus, Yeo does not teach successively "altering" and "selectively removing" part of a semiconductor alloy layer, either in lines 50-54 of column 5, or in lines 40-60 of column 4. Consequently, Yeo fails to disclose each and every element that is recited in Claim 6, and therefore fails to anticipate Claim 6 under §102. Accordingly, Claim 6 is believed to be allowable, and notice to that effect is respectfully requested.

Independent Claim 17

Independent Claim 17 also stands rejected under 35 U.S.C. §102 as anticipated by Yeo. This ground of rejection is respectfully traversed. Claim 17 includes a recitation of:

. . . altering at least a portion of the semiconductor alloy
layer overlying the source and drain regions; and
removing, at least partially, the altered semiconductor alloy
layer overlying the source and drain regions.

The rationale given in the Office Action for the rejection of these limitations is essentially the same rationale given in association with Claim 1. Accordingly, for reasons similar to those discussed above in association with Claim 1, it is respectfully submitted that Yeo does not contain anything that is even remotely comparable to the "altering" and "removing" limitations in Applicants' Claim 17. Consequently, Yeo fails to disclose each and every element that is recited in Claim 17, and Claim 17 is therefore not anticipated under §102 by Yeo. Accordingly, Claim 17 is believed to be allowable, and notice to that effect is respectfully requested.

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Dependent Claims

Claims 2-5, 7-12 and 15-16 each depend directly or indirectly from independent Claim 6, and are also believed to be distinct from the art of record, for example for the same reasons discussed above with respect to Claim 6. Claims 18-26 and 29 each depend directly or indirectly from independent Claim 17, and are also believed to be distinct from the art of record, for example for the same reasons discussed above with respect to Claim 17.

Conclusion

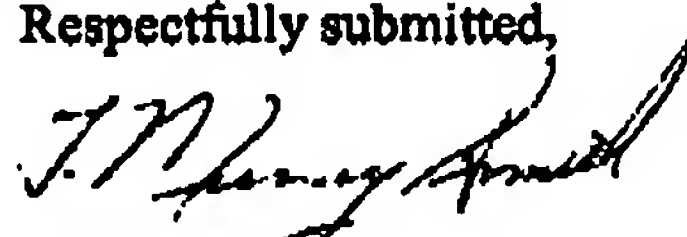
Based on the foregoing, it is respectfully submitted that all of the pending claims are fully allowable, and favorable reconsideration of this application is therefore respectfully requested. If the Examiner believes that examination of the present application may be advanced in any way by a telephone conference, the Examiner is invited to telephone the undersigned attorney at 972-739-8647.

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Although Applicants believe that no fee is due in association with the filing of this paper, the Commissioner is hereby authorized to charge any fee required by this paper, or to credit any overpayment, to Deposit Account No. 08-1394 of Haynes and Boone LLP.

Respectfully submitted,



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Enclosures: None

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